

Creation of multiple tools (RSP2 and RSP3) (CAD)



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Creation of multiple tools (RSP2 and RSP3) (CAD)

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Contents

1	Creation of multiple tools (RSP2 and RSP3) (CAD).....	6
1.1	Tutorial pre-requisites.....	6
1.2	Tutorial objectives.....	6
2	Introduction.....	7
3	Build an RSP2 probe and stylus assembly	8

1 Creation of multiple tools (RSP2 and RSP3) (CAD)

1.1 Tutorial pre-requisites

- Student must have completed the 'Creating a new environment, tools and calibration of tools' tutorial

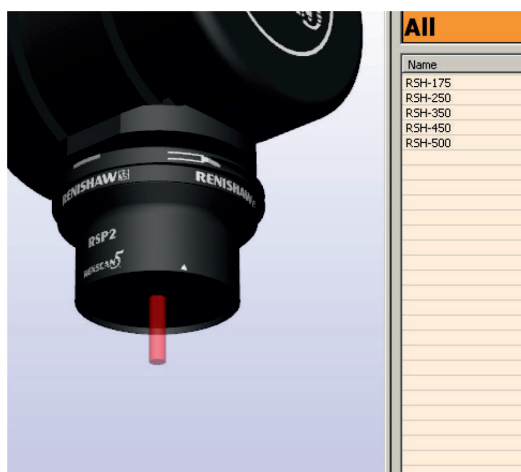
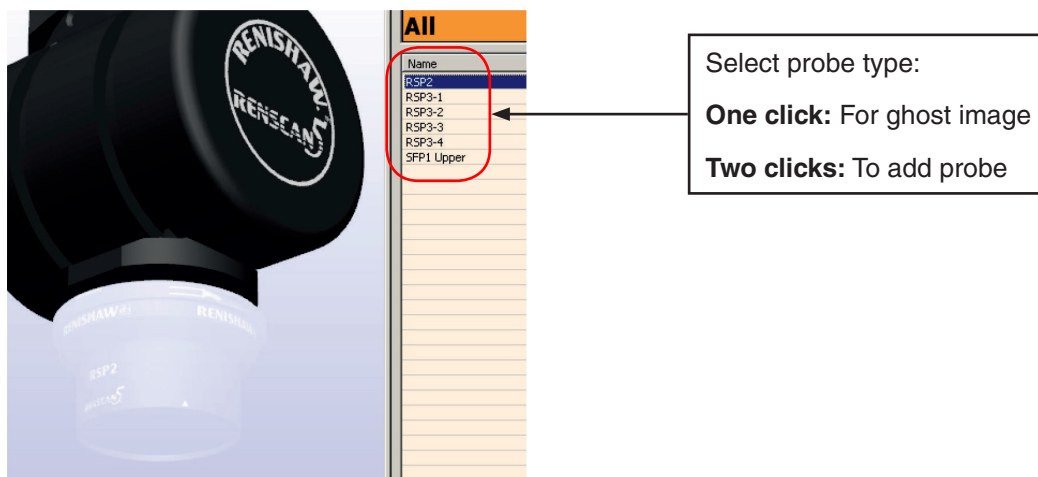
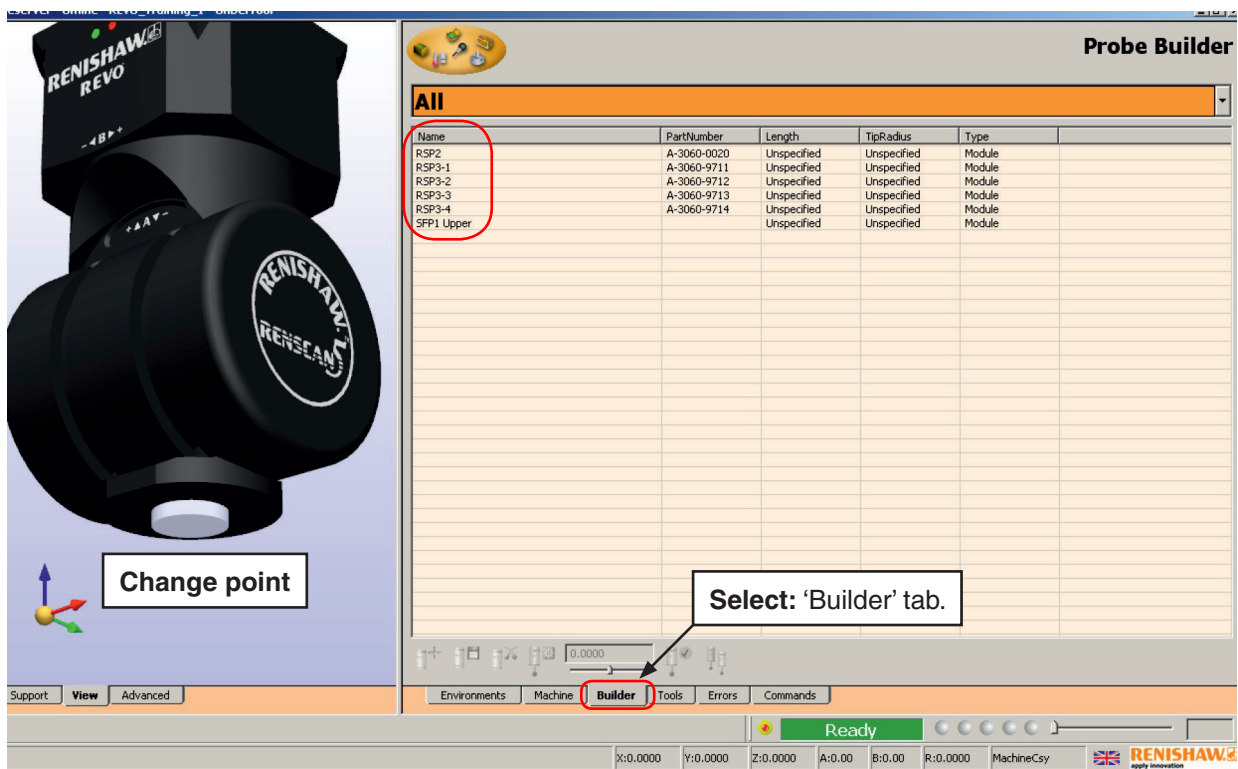
1.2 Tutorial objectives

- Further exposure to Renishaw specific hardware and software interaction
- Further exposure to the concept of multiple tool systems and hardware definition
- Consideration of hardware / software interaction

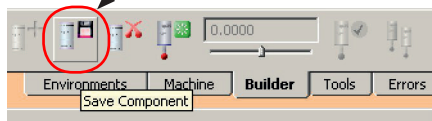
2 Introduction

This tutorial will provide the student with further information on the creation of multiple REVO specific tools. These methods comply with the I++ standard of CMM interface. UCCserver and this tutorial is for use with any Renishaw or OEM client software.

3 Build an RSP2 probe and stylus assembly



Click: 'Save Component'.



Save Component

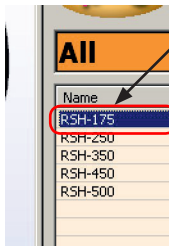
Name RSP2

Existing Items

Existing Items

Enter a meaningful name

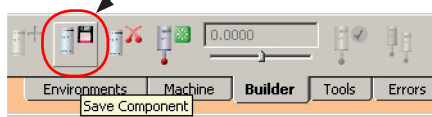
Select: 'RSH-175' stylus holder.

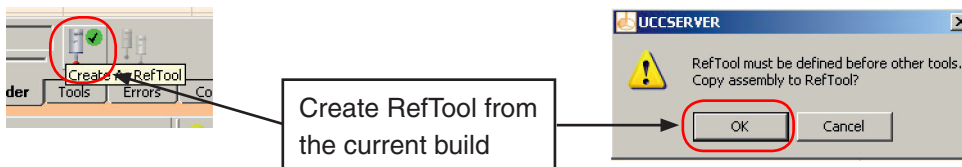
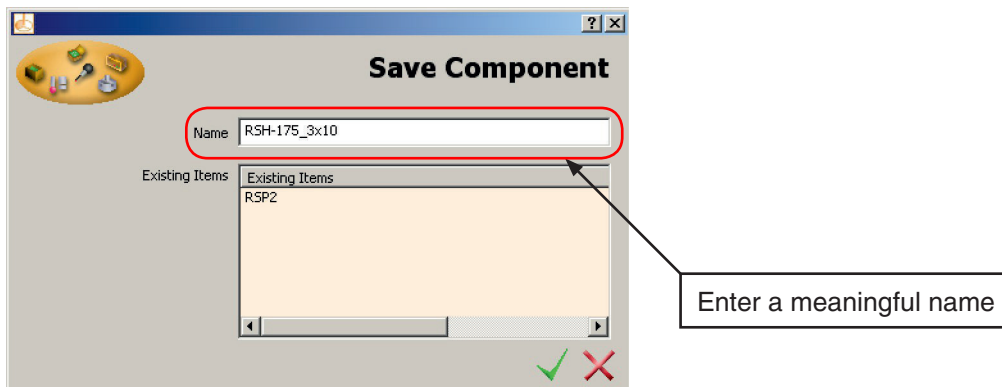


All	
Name	PartN
M2 D1R L10 EWL5 D0.75S	
M2 D1R L10 EWL5 D0.7TC	A-50C
M2 D2.0TC L40.0 EWL32.0 D2.0TC	A-50C
M2 HEM D18CE	A-50C
M2 STY D0.5R L10 EWL3 D0.5TC	A-50C
M2 STY D0.7R L20 EWL12 D0.7TC	A-50C
M2 STY D1.2TC L25.5 EWL19.5 D0.8TC	A-50C
M2 STY D1.5R L30 EWL25 D1TC	A-50C
M2 STY D1.5TC L35 EWL27.5 D1TC	A-50C
M2 STY D1R L10 EWL4.5 D0.75S	A-50C
M2 STY D1R L10 EWL4D0.7TC	A-50C
M2 STY D1R L20 EWL12.5 D0.8TC	A-50C
M2 STY D1R L20 EWL7 D0.7TC	A-50C
M2 STY D1TC L25.5 EWL19 D0.5TC	A-50C
M2 STY D2R L10 EWL6 D15S	A-50C
M2 STY D2R L20 EWL12 D1TC	A-50C
M2 STY D2R L40 EWL35 D1.5TC	A-50C
M2 STY D25IN L40 EWL32.5 D1.5TC	A-50C
M2 STY D3R L10 EWL7.5 D1.55S	A-50C
M2 STY D3R L20 EWL17.5 D1.55S	A-50C
M2 STY D3R L30 EWL30 D2CF	A-50C
M2 STY D4R L10 EWL10 D1.55S	A-50C
M2 STY D4R L22 EWL18 D2.4TC	A-55S
M2 STY D4R L22 EWL22 D2TC	A-50C

Select: Stylus.

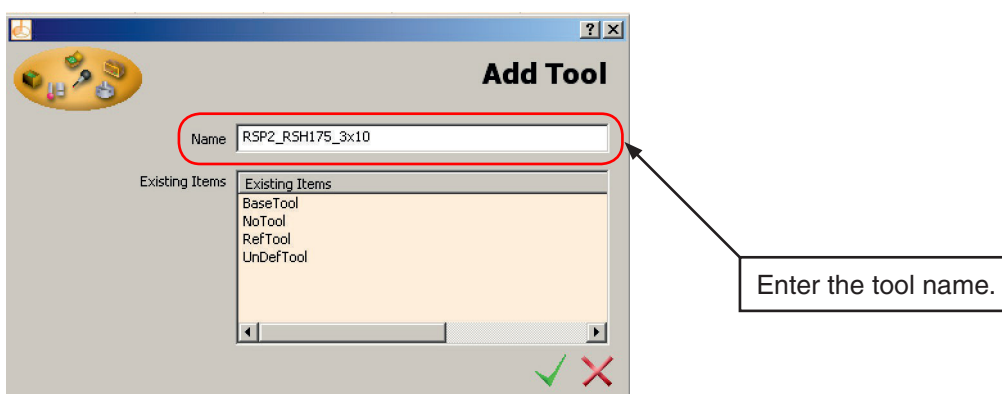
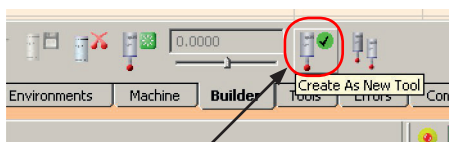
Click: 'Save Component'.



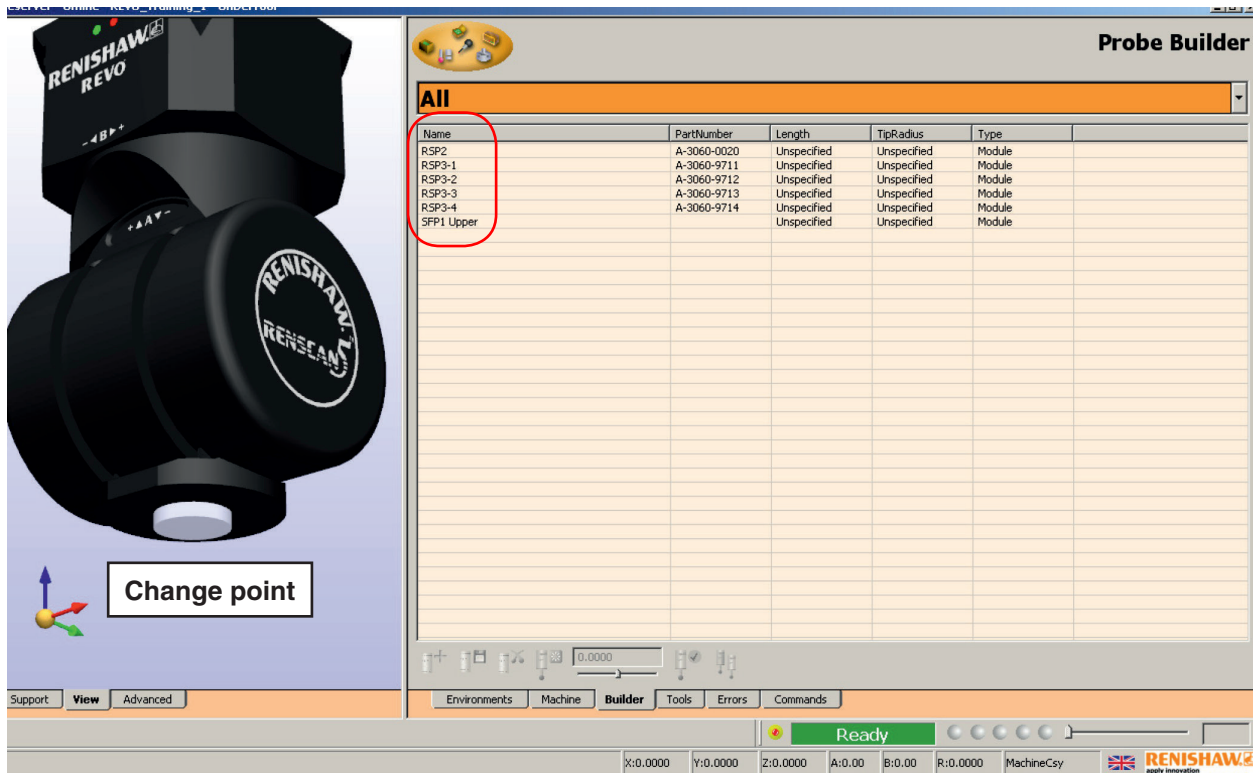


NOTE: This message is only issued once during the creation of the first tool of a new environment.

RefTool: This tool records the location of the sphere when calibrated. It cannot be indexed and should not be used for general measurement functions.



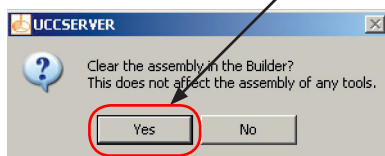
Build another RSP2 stylus assembly:



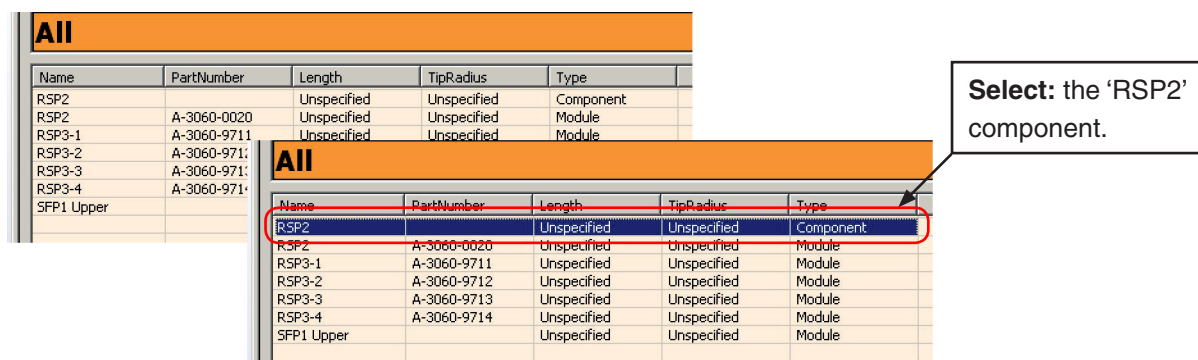
Click: 'Restart Tool Assembly'.



Click: 'Yes'.



NOTE: This will NOT delete any tools.

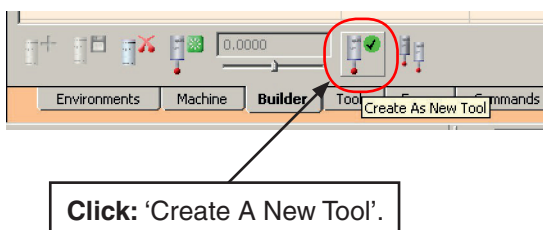
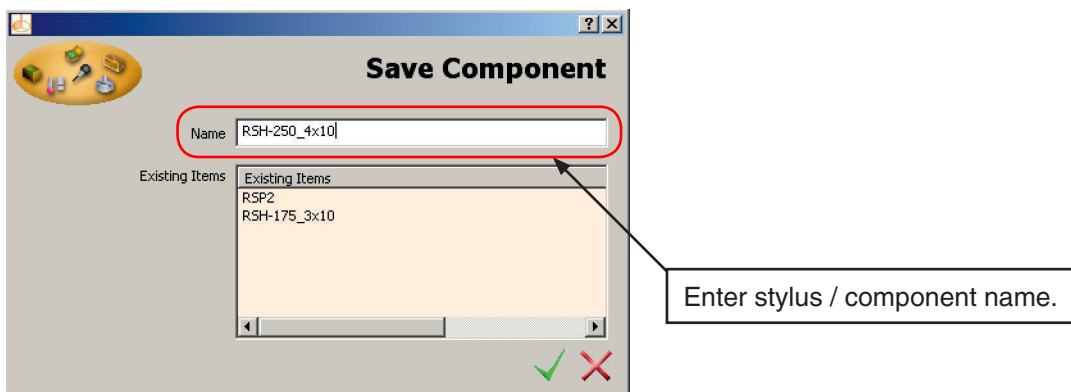
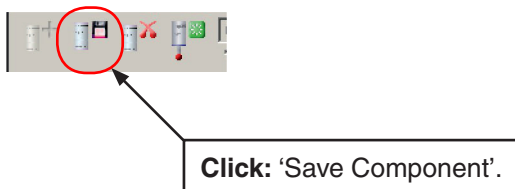


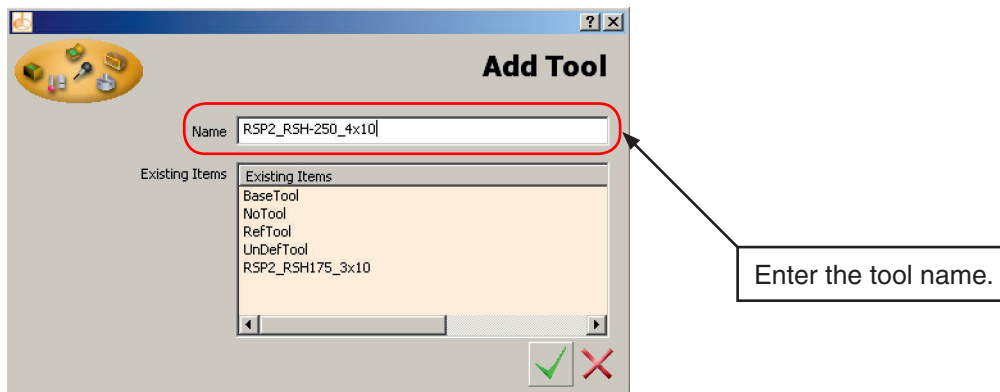
All				
Name	PartNumber	Length	TipRadius	Type
RSH-175	A-3061-0645	Unspecified	Unspecified	Holder
RSH-175_3x10	A-3060-0021	Unspecified	Unspecified	Component
RSH-250	A-3060-0021	Unspecified	Unspecified	Holder
RSH-350	A-3061-2250	Unspecified	Unspecified	Holder
RSH-450	A-3061-2250	Unspecified	Unspecified	Holder
RSH-500	A-3060-0023	Unspecified	Unspecified	Holder

Select: 'RSH-250'.

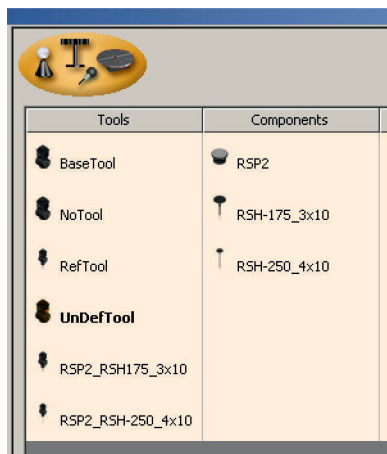
All				
Name	PartNumber	Length	TipRadius	Type
M2 HEM D18CE	A-5000-3614	0	9	Stylus
M2 D1R L10 EWL5 D0.755	A-5004-1765	10	0.5	Stylus
M2 D1R L10 EWL5 D0.7TC	A-5003-4890	10	0.5	Stylus
M2 SP STY D5.5R L10 EWL10 D2.555	A-5004-1765	10	2.75	Stylus
M2 STY D0.5R L10 EWL3 D0.5TC	A-5000-7805	10	0.25	Stylus
M2 STY D1R L10 EWL4.5 D0.755	A-5000-7806	10	0.5	Stylus
M2 STY D1R L10 EWL4D0.7TC	A-5003-1325	10	0.5	Stylus
M2 STY D2R L10 EWL6 D155	A-5000-7807	10	1.0	Stylus
M2 STY D3R L10 EWL7.5 D1.555	A-5000-3604	10	1.5	Stylus
M2 STY D4R L10 EWL10 D1.555	A-5000-4154	10	2	Stylus
M2 STY D5R L10 EWL10 D2.555	A-5000-4155	10	2.5	Stylus
M2 STY D6R L10 EWL10 D3.555	A-5000-4156	10	3	Stylus

Select: Stylus 'D4x10'.

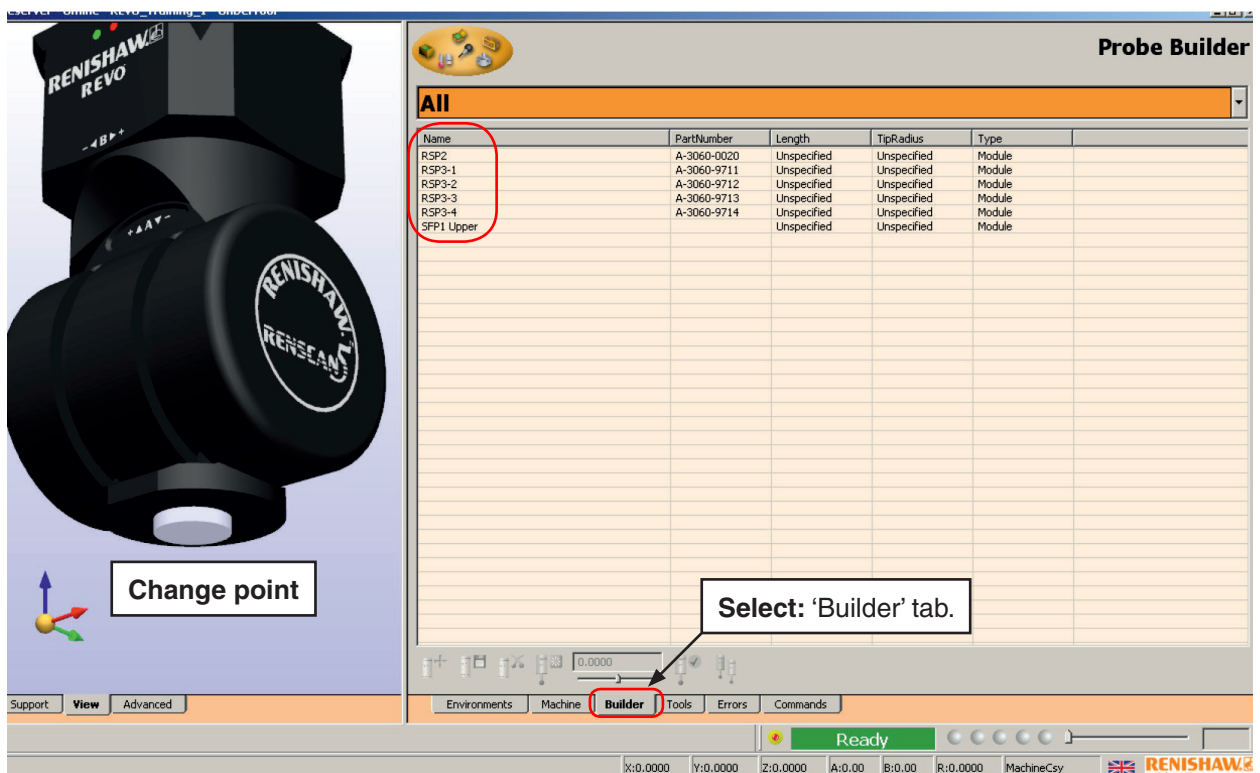


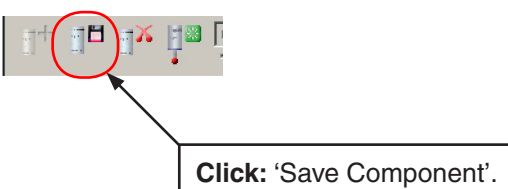
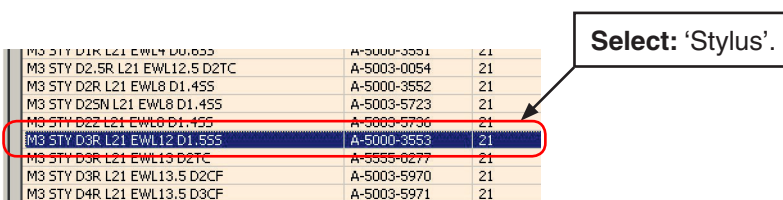
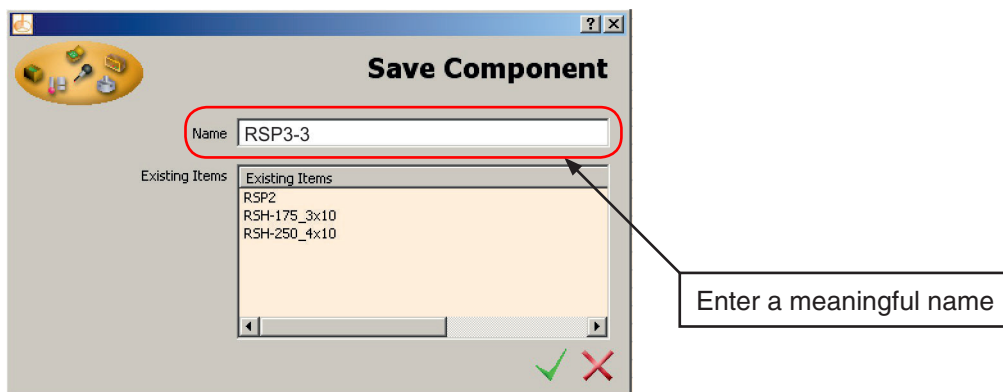
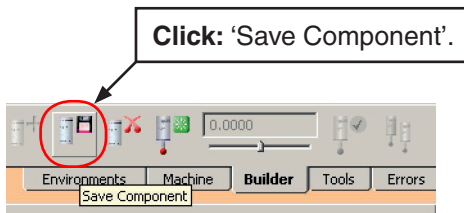
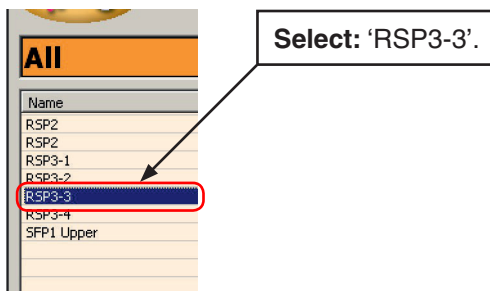


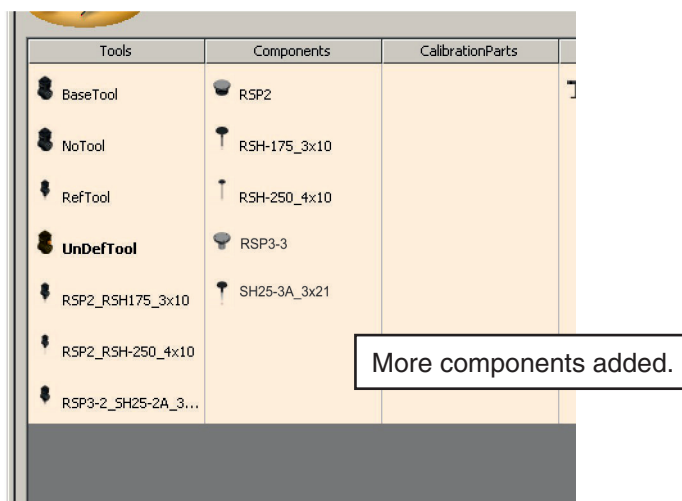
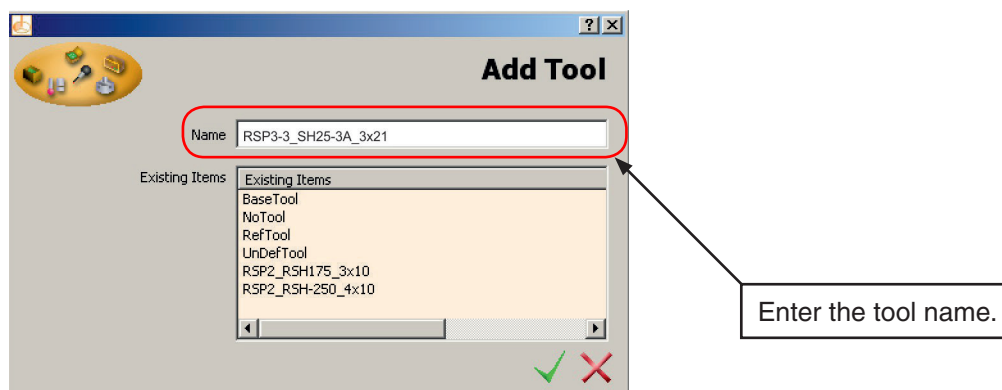
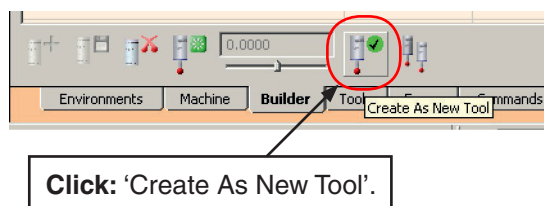
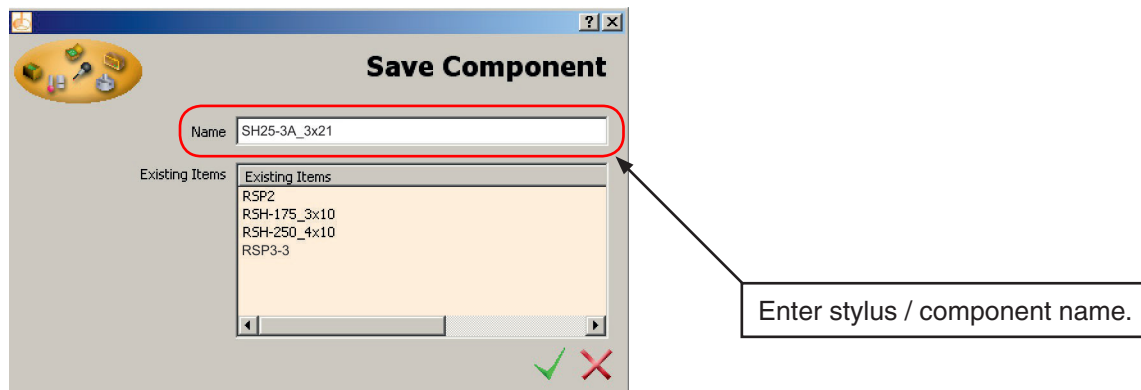
There are now two RSP2 tools:



Build an RSP3 probe and stylus assembly:

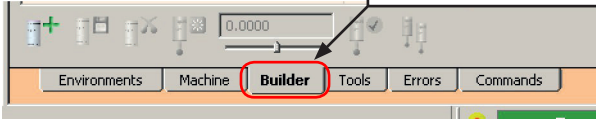




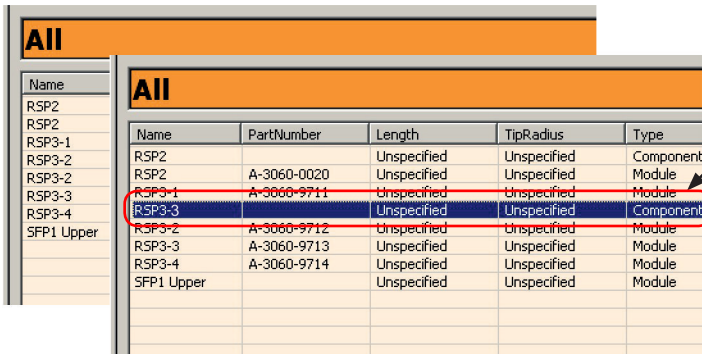


Build another RSP3 stylus assembly:

Select: 'Builder' tab.

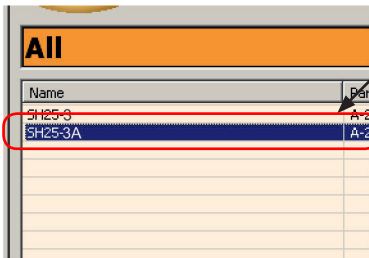


Select: 'RSP3-3 component'.



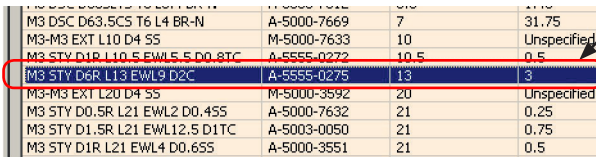
Name	PartNumber	Length	TipRadius	Type
RSP2		Unspecified	Unspecified	Component
RSP2	A-3060-0020	Unspecified	Unspecified	Module
RSP3-1	A-3060-9711	Unspecified	Unspecified	Module
RSP3-3	A-3060-9712	Unspecified	Unspecified	Component
RSP3-2	A-3060-9713	Unspecified	Unspecified	Module
RSP3-4	A-3060-9714	Unspecified	Unspecified	Module
SFP1 Upper		Unspecified	Unspecified	Module

Select: SH25-3A.




Name	PartNumber
SH25-3	A-2
SH25-3A	A-2

Select: 'Stylus'.



Name	PartNumber	Length	TipRadius
M3 DSC D63.5CS T6 L4 BR-N	A-5000-7669	7	31.75
M3-M3 EXT L10 D4 S5	M-5000-7633	10	Unspecified
M3 STY D1R L10.5 EWL5.5 D0.8TC	A-5555-0272	10.5	0.5
M3 STY D6R L13 EWL9 D2C	A-5555-0275	13	3
M3-M3 EXT L20 D4 S5	M-5000-3592	20	Unspecified
M3 STY D0.5R L21 EWL2 D0.4S5	A-5000-7632	21	0.25
M3 STY D1.5R L21 EWL12.5 D1TC	A-5003-0050	21	0.75
M3 STY D1R L21 EWL4 D0.6S5	A-5000-3551	21	0.5

Click: 'Save Component'.



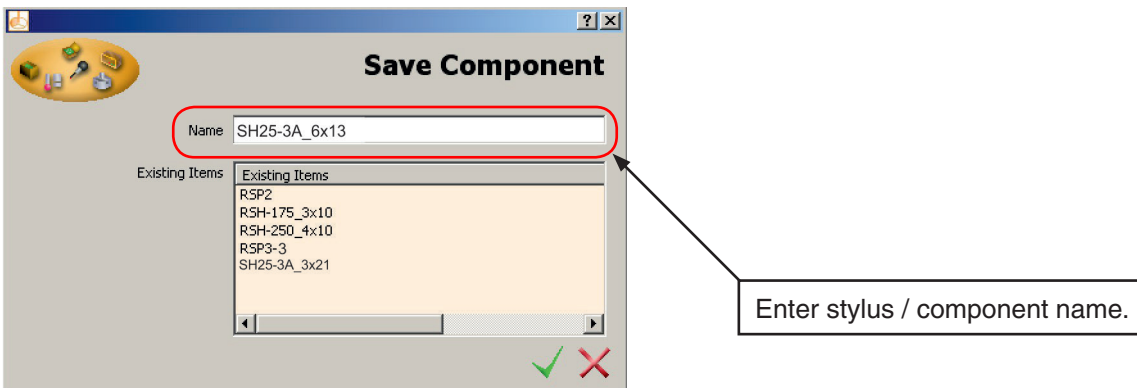
Save Component

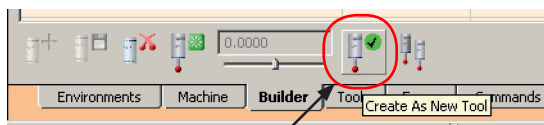
Name: SH25-3A_6x13

Existing Items:

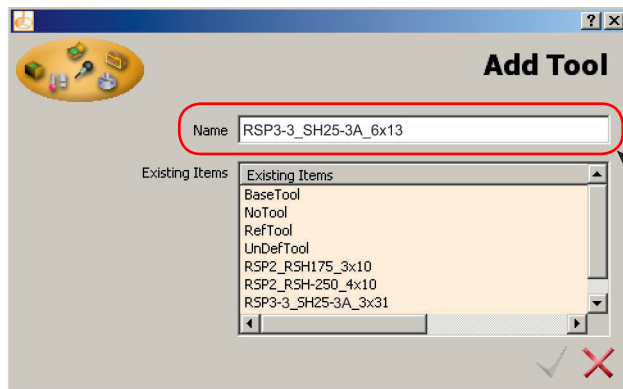
- RSP2
- RSH-175_3x10
- RSH-250_4x10
- RSP3-3
- SH25-3A_3x21

Enter stylus / component name.

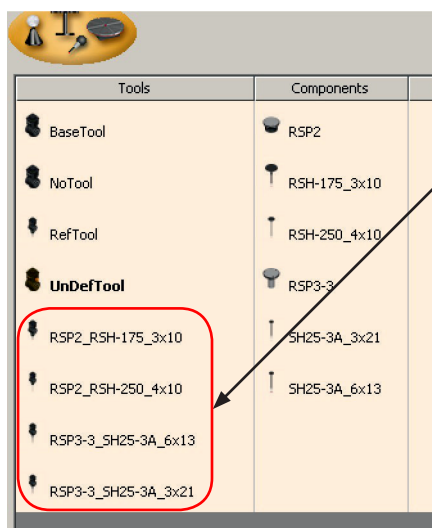




Click: 'Create As New Tool'.



Enter the tool name.



We now have four tools made up from the listed components

All tools must be calibrated before use.

The RSP2 uses inferred calibration for any angular position.

The RSP3-n must be calibrated at each angular position.

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